

GOODDING'S ONION **(*Allium gooddingii*)**

STATUS: Formerly a candidate for Federal listing, species protected under a Conservation Agreement.

SPECIES DESCRIPTION: *Allium gooddingii* (Goodding's onion) is an herbaceous perennial. The bulb is elongate, 1 cm (.4 in) thick, and terminates in a thick iris-like rhizome. The inner bulb coats are whitish or pinkish, the outer coats are brownish and membranous with persistent parallel fibers. Each plant has leaves, which are flat, entire, and obtuse, and 4-8 mm (.15 - .3 in) broad. The flowering stalk is 35-45 cm (14 - 18 in) tall, flattened, and narrowly winged toward the apex. Flowers are purplish-red to rose-pink with 6 petals. Each umbel produces approximately 20 flowers.

HABITAT: Occurs within mixed conifer and spruce-fir zones, generally in north-trending drainages at elevations ranging from 2,286 to 3429 m (7,500 to 11,250 ft). Most sites are shaded to varying degrees, on slopes or in drainages or narrow canyons, and are usually in either primary or secondary stream courses. Soils which support this species are basaltic or rhyolitic with the upper horizon comprised of loamy alluvium with a high organic content.

RANGE: Historic: Known populations have been extirpated from Canyon del Muerto (Navajo Nation) and on the Apache-Sitgreaves National Forest.

Current: Known from the White Mountains of Arizona, the Mogollon Mountains of New Mexico, and from three isolated locations: the Santa Catalina Mountains of southern Arizona, near Sierra Blanca Peak in southern New Mexico, and the Chuska Mountains that straddle the Arizona/New Mexico border. The majority of known Goodding's onion sites are on National Forest System lands with a few additional sites on Indian reservations.

REASONS FOR DECLINE/VULNERABILITY: Habitat destruction and modification from logging, road construction, recreation, and grazing were considered the primary threats to the species.

LAND MANAGEMENT/OWNERSHIP: National Forest Service. *A. gooddingii* is found on lands in the Apache-Sitgreaves, Coronado, Lincoln, and Gila National Forests.

NOTES: In 1997 the U.S. Forest Service and the U.S. Fish and Wildlife Service developed a Conservation Assessment and Strategy for management of the species (available online at <http://arizonaes.fws.gov/Documents/DocumentsBySpecies/Goodding'sOnion/gooddingsonionAgreement.pdf>). Some components of the agreement that reduce or eliminate threats to the onion include maintaining the canopy cover and avoiding ground disturbance and erosion during timber harvesting activities in and near occupied sites, prohibiting new livestock structures that would attract grazing ungulates to occupied sites, and prohibiting or redesigning new roads and trails found to adversely affect the onion.